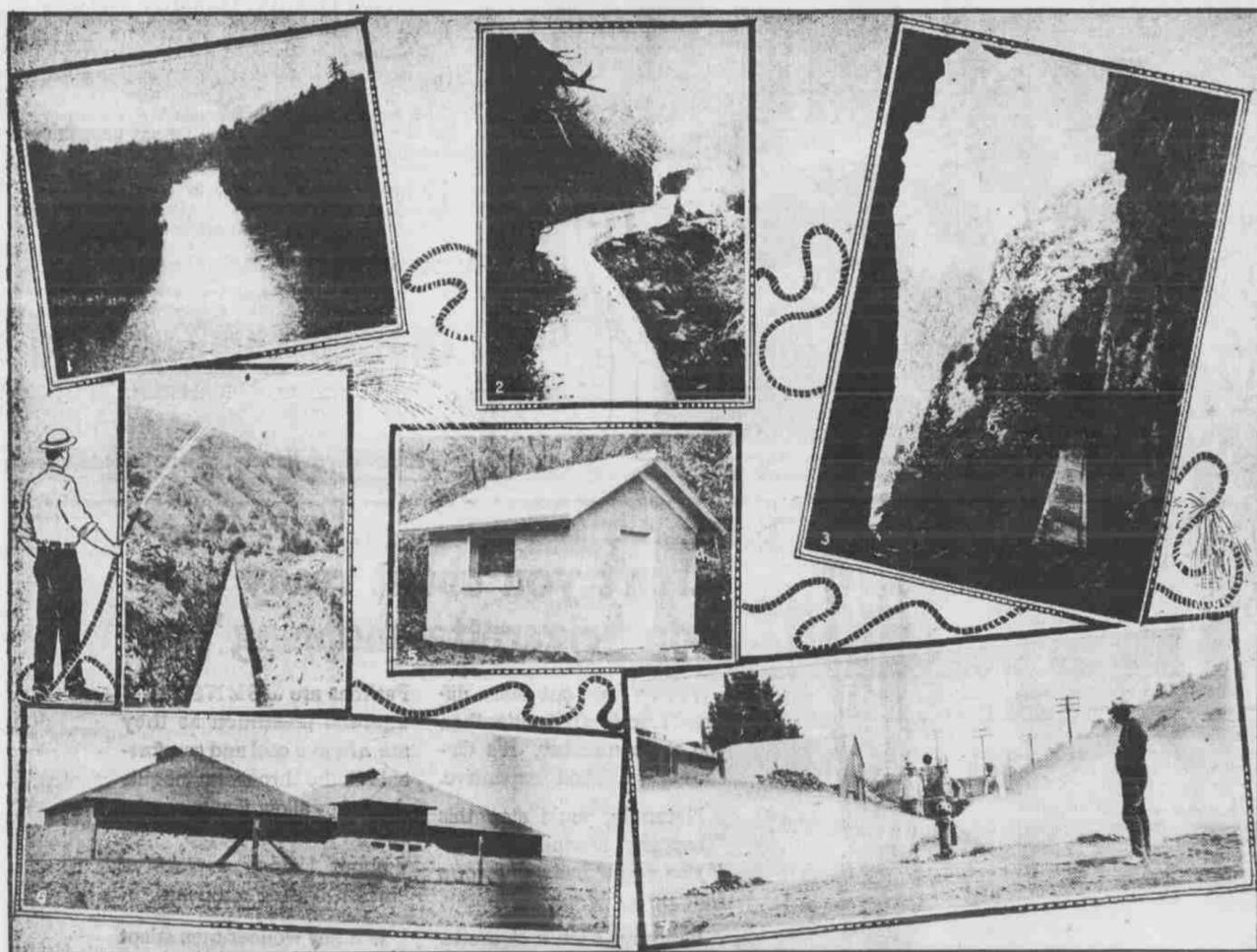
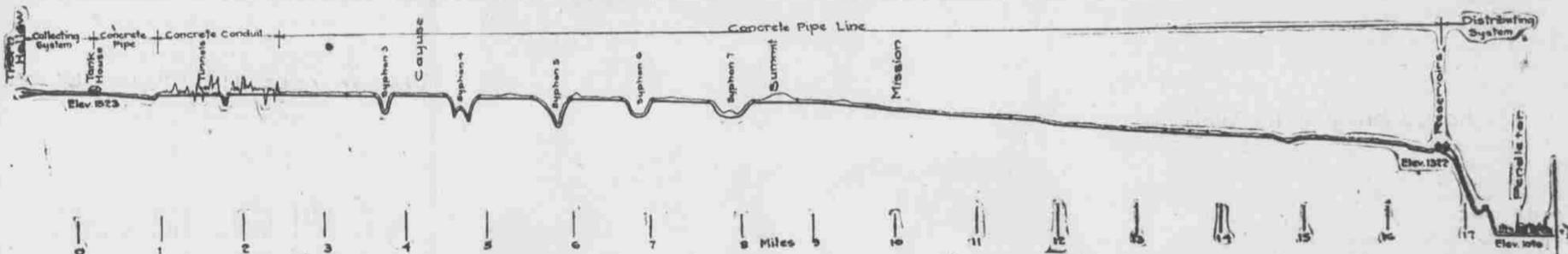




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SPLENDID MOUNTAIN WATER SYSTEM PROVIDES
PENDLETON WITH PURE AND ABUNDANT SUPPLY



Top strip shows route of pipe line from Thorn Hollow to Pendleton. The group picture shows scenes along the line during construction work. No. 5 is view of the twin reservoirs; No. 7 illustrates the heavy pressure under the new system. The group at the right shows scenes at the Public Natatorium, supplied from the overflow from the water system.

Not by any means the least of Pendleton's many assets is her water system.

For a little more than two years now Pendletonians have been drinking water brought a distance of more than seventeen miles from mountain springs. Like all good things such a supply was secured only after a long, hard fight but that it was a fight well worth while none will now deny, not even those who fought the project reluctantly.

Even in the hottest period of summer, Pendleton's mountain water is so cold that no icing is required to make it drinkable. In quality it is not even surpassed by the famous Bull Run water of Portland. In quantity there is enough for Pendleton's needs for years to come. In purity it is beyond reproach. Year after year chemists have analyzed it and declared it free from any harmful bacteria, and Pendleton's physicians will furnish testimony that the health of the city has been markedly improved since the mountain water was brought to town. Typhoid fever has been almost unknown here during the past two years and such few cases as have been reported have been traced directly to the use of well water or to out-of-town origin. Bowel intoxication among children, which was so prevalent when the city used river water is seldom heard of now.

The city not only furnishes water to her inhabitants but also supplies the

Eastern Oregon State Hospital with water for domestic purposes. In fact Pendleton's promise to build a gravity water line was one of the big factors in determining the location of that institution. The fulfillment of that promise is an argument of some weight in the campaign for locating a normal school in this city.

First steps toward securing a gravity system for Pendleton were taken about seven years ago. The people wanted it and, when the subject was submitted to them for approval, they voted a bond issue by a big majority. At several subsequent elections, when the gravity system was an issue, they repeated their approval.

Before all obstacles were cleared away, the water commission and its

supporters had to fight many battles. The Indians upon whose ground were located the fissure springs and over whose land the pipe line must pass, opposed the efforts to secure the land even though generous offers were made. It was necessary to fight the matter through the courts.

Selfish interests in Pendleton, some few citizens generally opposed to progress and others who favored other sources of supply fought the plans of the commission at every turn. The story of the long fight, of the methods employed to obstruct the efforts of the commission, would be a long but very interesting one.

The main source of supply for the system is a series of springs known as the Thorn Hollow spring and lying

about eighteen miles east of Pendleton. The principal spring now being used is the Wenix spring. The springs now tapped furnish plenty of water, the minimum 24 hour flow during the past summer having been 2,400,000 gallons. Anticipating the growth of Pendleton, a survey is now being made to the Chapish springs, about three miles beyond the Wenix springs and the pipe line will probably be extended there next year.

This will give an additional 1,500,000 gallons daily. The pipe line is sufficiently large to carry 5,000,000 gallons of daily daily and this will be sufficient for the needs of Pendleton for many years to come.

The system was built with an eye to the future. In fact the present

pipe line is just the first unit of the ultimate pipe line. When the water consumption of Pendleton becomes so large that the springs can no longer supply enough, the pipe line will be extended due east to the north fork of the Umatilla river, which is in the mountains and which runs pure, cold water. Here also an electrical power may be generated in case Pendleton should ever undertake to supply the city with municipally owned "juice."

The construction work on the gravity project was actually undertaken September 23, 1912. The general contract for the construction of the pipe line was secured by the Bent Construction Co. of Los Angeles and the contracts for building the reservoirs and constructing the conduit

along the bluffs at Thorn Hollow were let to Jeffrey & Bufton of Portland. The reservoirs were completed about April 15th, 1914. Each reservoir has a capacity of one million gallons and they are arranged so one may be used while the other reservoir is being cleaned or repaired. Through the use of a pass the water from the springs may be turned directly into the distributing system without going through the reservoirs at all. This arrangement insures a cooler supply of water during the summer months and at the same time is protection against inconvenience should the reservoirs ever become disabled.

The system is very favorably built in that the operation will require practically no expense as the flow of water into the pipe line is adjusted automatically at the tank house at the upper end of the line.

The pipe line is of concrete and reinforced concrete. For a distance of 35,000 feet a 24 inch pipe is used, while for a distance of 17,525 feet a 26 inch pipe is in use. At other points the size of the line varies from 18

inches to 24 inches. The conduit along the bluff at Thorn Hollow is 24 inches reinforced. The siphons are also reinforced and there is a total of 17,555 feet of 24 inch reinforced pipe line in the siphons. In the construction of the line 95 tons of reinforcement steel was used and 40,000 barrels of cement.

Along the bluffs below Thorn Hollow there are three different tunnels averaging about 100 feet in length. A view of one of the tunnels is shown above. There are four concrete trestles on the line. The siphons vary from a 15 foot to a 9 foot hydraulic head. In the building of the water system there was excavation work to the extent of 52,000 cubic yards. Along the line there are 28 manholes at distances of half a mile apart. The drop on the pipe line is one inch to the 100 feet for the first six miles of the line and for the last 11 miles the fall is more abrupt, there being a total fall of 200 feet between the tank house and the reservoirs to the center of the city is 25 feet. The pressure in the central portion of town is 110 pounds.

The overflow from the system is used to supply the public natatorium with water.

